



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D,X	EP 1 228 878 A (CANON KK) 7 August 2002 (2002-08-07)	1-9	B41J2/21
Y	* column 1, line 3 - line 7; figures 2,4 * * column 4, line 54 - column 5, line 41 * ---	10-12	
X	US 6 375 294 B1 (KNEEZEL GARY ALAN) 23 April 2002 (2002-04-23)	1-9	
Y	* column 6, line 13 - line 16; figures 4,15 * * column 6, line 43 - line 45 * * column 10, line 47 - line 58 * ---	10-12	
Y	EP 0 914 954 A (LEXMARK INT INC) 12 May 1999 (1999-05-12) * column 14, line 35 - column 15, line 5 * ---	10-12	
Y	US 5 581 284 A (HERMANSON HERMAN A) 3 December 1996 (1996-12-03) * column 1, line 6 - line 12 * ---	10-12	
Y	US 5 587 730 A (KARZ ROBERT S) 24 December 1996 (1996-12-24) * column 4, line 18 - column 5, line 5 * -----	10-12	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B41J
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 21 July 2003	Examiner Achermann, D
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 03 10 0424

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-07-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1228878	A	07-08-2002	EP 1228878 A1	07-08-2002
			JP 2002301815 A	15-10-2002
			US 2002105557 A1	08-08-2002
US 6375294	B1	23-04-2002	JP 2002172807 A	18-06-2002
EP 0914954	A	12-05-1999	US 6076910 A	20-06-2000
			EP 0914954 A1	12-05-1999
			JP 11235815 A	31-08-1999
US 5581284	A	03-12-1996	JP 8207321 A	13-08-1996
US 5587730	A	24-12-1996	NONE	



This application is covered by the extended European search report pilot project at present running within the European Patent Office, applied to all European patent applications filed as first filing and searched on or after 01.07.03. Under this project the EPO issues together with the search report an opinion on whether the application and the invention to which it relates meet the requirements of the EPC. This non-binding opinion is issued free of charge as a service. This opinion may be used as the basis for an informed decision as to whether it is desired to pursue the application further or not.

For further details of this pilot project, the applicant's attention is directed to the Official Journal edition 5/2003. If any further immediate questions or comments arise the EPO Customer Services: +31-70-340 4500 or +49-89-2399 2828 can be contacted.

The attached opinion reveals that the application or the invention to which it relates appear not to meet the requirements of the Convention (see comments on enclosed Form 2906).

If the applicant wishes to continue with this application the examination fee must be paid. Where appropriate amendments can be filed to address the objections raised in the opinion, thus shortening the overall procedure. If no amendments are filed, the opinion will be re-issued as the first official communication under Article 96(2) and Rule 51(2) EPC.

If the examination fee has already been paid and the right to the communication under Article 96(1) EPC has been waived for this application, the first official communication under Article 96(2) and Rule 51(2) EPC will be issued promptly.



The examination is being carried out on the **following application documents**:

Text for the Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT SE SI SK TR LI

Description, pages:

1-19 as originally filed

Claims, No.:

1-12 as originally filed

Drawings, sheets:

1/2-2/2 as originally filed

- 1 The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: EP-A-1 228 878 (family member of US-2002/0105557 cited in the present application on page 4)

D2: US-B-6 375 294

D3: EP-A-0914954

D4: US-A-5581284

D5: US-A-5587730.

- 2 The present application does not meet the requirements of Article 52(1) EPC, because the subject-matter of claims 1-9 is not new in the sense of Article 54(1) and (2) EPC.

Claim 1:

D1 discloses (see in particular col. 1 lin. 3-7, col. 4 lin. 54-col. 5 lin. 41, fig. 2, 4) a method for printing grey scale images on a printing medium, the method comprising: delivering first droplets of a colour with a first volume from a first printhead (C1) and second droplets of that colour with a second volume from a second printhead (SC1), both volumes being different, and merging together the droplets on a target pixel position (see eg fig. 5B).

The subject-matter of claim 1 is also known from D2 (see in particular col. 6 lin. 13-16, col. 6 lin. 43-45, col. 10 lin. 47-58, fig. 4 and 15).

*Claim 8:*

D1 discloses (see in particular col. 1 lin. 3-7, col. 4 lin. 54-col. 5 lin. 41, fig. 2, 4) an ink jet printer suitable for printing grey scale images onto a printing medium, the printer comprising a first printhead (C1) and a second printhead (SC1) for a colour (cyan), the volume of the droplets produced by the first printhead being different from that of the second printhead, and a drive system to drive those printheads with a frequency so that a pixel is formed by merging droplets from both printheads.

The subject-matter of claim 8 is also known from D2 (see in particular col. 6 lin. 13-16, col. 6 lin. 43-45, col. 10 lin. 47-58, fig. 4 and 15).

Claims 2-7 and 9:

The subject-matter of claims 2-7 and 9 is known from D1 (see in particular col. 1 lin. 3-7, col. 4 lin. 54-col. 5 lin. 41, fig. 2, 4) or D2 (see in particular col. 6 lin. 13-16, col. 6 lin. 43-45, col. 10 lin. 47-58, fig. 4 and 15).

- 3 The present application does not meet the requirements of Article 52(1) EPC, because the subject-matter of claims 10-12 does not involve an inventive step in the sense of Article 56 EPC.

It is to be noted that the subject-matter of claim 10, 11 or 12 comprises all the features of claim 8 or 9.

Document D1, which is considered to represent the most relevant state of the art, discloses (see in particular col. 1 lin. 3-7, col. 4 lin. 54-col. 5 lin. 41, fig. 2, 4) a method from which the subject-matter of claim 10 differs in that printing with a defective marking element from one printhead is replaced by printing with a corresponding marking element from another printhead.

The problem to be solved by the present invention may therefore be regarded as how to compensate for a defective marking element.

The solution proposed in claim 10 of the present application cannot be considered as involving an inventive step (Articles 52(1) and 56 EPC) for the following reasons.

This feature has already been employed for the same purpose in a similar printer,



see document D3 (in particular col. 14 lin. 35-col. 15 lin. 15), or D4 (in particular col. 1 lin. 6-12), or D5 (in particular col. 4 lin. 18-col. 5 lin. 5). It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply this feature with corresponding effect to a method according to document D1, thereby arriving at a method according to claim 10. The subject-matter of claim 10 does therefore not involve an inventive step (Articles 52(1) and 56 EPC).

The same reasoning applies for the subject-matter of claims 11 and 12.
Alternatively D2 can be seen as the closest state of the art.